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ABSTRACT

The Utvardering genom uppfoljning (UGU) project was initiated in Sweden to follow individual students throughout their school career to understand their experiences and learnings during that time. Approximately 18,600 students from grades six and three comprised the survey population. This newsletter serves as an interim report highlighting key elements of the program for parents and students. Information reviewed includes: (1) background and purpose of the project; (2) participants; (3) data collection; (4) ability testing; (5) arithmetical skills; (6) parents' and pupils' opinions; (7) sex differences; (8) attitudes of junior, senior, and upper secondary school students; (9) study and vocational guidance; (10) alternative courses and standardized achievement tests; and (11) future plans. A listing is also provided of examples of reports and articles from the UGU Project. (ML)

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SCHOOL RESEARCH Newsletter

ED279546

DECEMBER 1986

FIELD - TOPIC
Evaluation
Follow-up studies
Study routes and educational achievement

1986:10

Current Project

TITLE OF PROJECT: EVALUATION THROUGH PUPIL FOLLOW-UP - THE UGU PROJECT

The overall purpose of this project is to follow up and study pupils' development with a view to evaluation. From a more purely statistical viewpoint, the project is intended to facilitate wide-ranging studies of individual paths through the school system. Summing up, the project is being concentrated on evaluative studies of the ability of the educational system to confer "equal entitlement to equivalent education" on different individuals in different circumstances. The pupils' own assessments of their experience as pupils and of the skills they have attained are an important field here.

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PREFACE

This issue of the School Research Newsletter describes a very extensive project involving a large number of people, the main purpose being to supply information to all pupils and their parents who have taken part in the project surveys.

The UGU project is a follow-up study involving just over 18,000 pupils who are being asked to supply a large number of particulars on various occasions spread out over a long period of time. The magnitude and structure of the project entail two big problems:

1. The most important results take a long time to come through, which can be a source of irritation both to those of us who are directly engaged in the project and, perhaps still more so, to those who have taken part in it in some other way.
2. It is hard to reach everybody who has taken part in the surveys, so as to keep them continuously informed of the findings which have emerged as work has proceeded.

With the aid of this issue of the School Research Newsletter, we, the project leaders, hope to reach as many people as possible with information about the progress of work and some of the findings which we hope will be of interest, above all to those who have taken part in the studies. This, then, is not a final report on the entire project. It is more a selection of interim findings, of maximum topical interest. The more long-term evaluation of school, which constitutes the principal purpose of this project, will not be possible until the pupils have left school, which in the case of the youngest cohort will not be for some years yet.

We hope that the information presented will, to some extent at least, measure up to the expectations of the pupils and parents taking part. Those requiring further information are referred primarily to the list of reports and other material from the project and from Statistics Sweden (SCB) presented at the end of this report. That material can be ordered from the project team. Anybody wishing to do so is also

welcome to get in touch with us direct, by letter or by phone. Addresses and phone numbers are listed on page 21.

Stockholm, June 1986

Ingemar Emanuelsson
Project Leader

BACKGROUND AND PURPOSE OF THE UGU PROJECT

Occasionally we have used a photograph of the start of the Stockholm Marathon to illustrate the UGU project. That picture conveys an idea of the number of people involved in each of the two samples which our study involves, when they are gathered in one place, namely just over 9,000. But the same picture also serves to illustrate several of the purposes of this study.

All the participants are about to start on the same course. To it they bring very different qualities in many respects. This is already apparent from the different starting positions. Those in the front rows have a better starting position than those who are further back. Those who have acquired this position on the strength of previous qualifications have, so to speak, gained better "marks" in previous races, are better trained, have superior "running aptitude" and so on. It is also conceivable that different runners have different levels of aspiration. Some of them are out to win the race, while for others the main thing is to reach the finishing post. They have all come to the starting line to try and do their best, but their achievements will attract widely differing degrees of attention and admiration.

The comparison between pupils' progress in compulsory school and a marathon race is of course a dubious one in many ways, but these two things do have many points in common. One crucial difference between them is that enrolment for and participation in a marathon race is entirely voluntary, whereas schooling is compulsory. But just as the participants in the race talk about their experience in terms of "success" or "managing", pupils often use the same expressions to describe their experiences at school. If we are to know what happens to the different participants in the marathon race, merely looking at the result sheets will not do. We will have to follow what happens during the actual race. This too is the fundamental principle of the UGU project. Our aim is to follow the individual subjects throughout their school career, so as to study their experience and learning during that time.

These experiences and learning results are to be viewed in relation to the pupils' aptitudes. This is where the evaluation perspective of the project comes in, but we are concerned with measuring, not the achievements of individuals but, primarily, the way in which schools are able to measure up to the objective of giving pupils with different aptitudes the best possible opportunities for development. In other words, our studies are concerned with evaluating schools as an educational environment. The main focus of interest is on the objectives which can be called equality-promoting. In what respects is "equivalent education" successfully given to individuals with different aptitudes? To find out the answers to questions like these, you have to follow the individual subjects throughout their education and preferably after it as well.

This project is being jointly conducted by Statistics Sweden, the National Board of Education and the National Board of Universities and Colleges. The actual survey work is being done at the Department of Educational Research, Stockholm Institute of Education, and at Statistics Sweden in Örebro. The project forms part of the central evaluation of schooling.

THE PARTICIPANTS

Pupils from two annual cohorts are taking part in the project. The first of those comprises pupils who were in grade 6 of compulsory school in the 1979/80 school year, which means that most of them were born in 1967. A statistical sample of 421 classes, comprising 9,108 pupils in 29 municipalities, was taken from this cohort. The other cohort comprises pupils who were attending grade 3 in the spring of 1982. Most of the pupils in this cohort were born in 1972, i.e. they are five years younger than the pupils in the first survey population. There are about 9,500 pupils in this cohort, representing 550 classes in the same 29 municipalities.

When the first data were collected from pupils in the two groups, their parents and guardians also took part by answering questions.

WHAT DATA ARE BEING COLLECTED?

Some of the particulars we are collecting are already available in school offices. This is the case with data concerning, for example, marks, elective subjects, study course choices, supportive measures, special instruction, home language (mother tongue) instruction, absence, class changes and relocations. Data of this kind have been collected by Statistics Sweden at the end of every school year ever since the spring of 1980. Data collected from upper secondary school include particulars concerning the students' choices of lines (study programmes) or courses.

Other particulars are obtained directly from the pupils and their parents by means of questionnaires and tests. The questions are concerned with attitudes to school and school work, interests, plans for the future, work and continuing education. One year after the pupils have left compulsory school, they are asked what value they put on their own basic skills and whether school has given them sufficient training. Questions of this kind were put to grade 6 pupils in 1980 and to the same pupils one year after they had left compulsory school in the spring of 1984; they were also put to grade 3 pupils in 1982 and to the same pupils three years later, in 1985, when they were in grade 6. The tests used in grade 6, both in 1980 and 1985, are ability tests in the form of an Opposites test (verbal), a Metal-folding test (spatial) and a Number Series test (inductive). In this way it is possible to compare the results obtained by the two cohorts. Two similar ability tests - Opposites and Metal-folding - were used in grade 3 in 1982. These tests can be said to measure certain aspects of the pupils' aptitudes. In addition, achievement (knowledge and skill) tests have been used in the youngest cohort, originally because standardised achievement tests were not given to these pupils in school. A reading comprehension test was also given in grade 3 in 1982 and the same test was repeated in 1985 in grade 6. An arithmetic test was given in both grades, the only difference being that a number of problems were added in grade 6 to the test already taken in grade 3. In this way it is possible to study the growth of knowledge during the intermediate-level years in the respects measured by the tests.

The following examples of results from the project studies will also show in greater detail which questions were asked in the questionnaires, which types of test problem were set, and so on. We have also included examples of results showing how the data collected are processed and synthesised. One fundamental requirement in these connections is that the identity of individual pupils and classes must not be disclosed. A promise to this effect was made when the data were collected, but the same obligation is also incurred under confidentiality regulations for research data and under the Data Act and the directive issued by the Data Inspectorate when awarding permission for the compilation of a personal register to be used in the project.

ABILITY IS RISING

In the UGU project we want to reveal differences in pupils' school aptitudes by means of ability tests. These tests are not designed to measure the results of the instruction given in school but rather the obvious fact of learning assignments coming more or less easily to some pupils than to others. Not that the results of such tests are unaffected by education, but the tests have been constructed in such a way as to minimise their sensitivity to effects of that kind.

In various connections, there has been a desire to compare the results of ability tests over time, as between different cohorts of pupils. It has often been found that pupils tested on a later occasion have obtained higher scores than pupils the same age tested earlier. At least, this was the case until the 1970s. More recently a number of American surveys have yielded findings suggesting that the level of ability is once more on the decline. The use by the UGU project of exactly the same tests as were given in similar studies of pupils the same age during the 1960s presented a unique opportunity of ascertaining whether the same was true in Sweden. What happened, briefly, was that 13-year-olds in 1980 scored better marks than 13-year-olds in 1961 and 1966. In other words, we found a rise, not a fall, in the level of ability.

But the comparisons we were able to make between groups of pupils were even more interesting than this overall finding. It was found in the 1960s that children whose parents' occupations required post-elementary schooling had higher test scores on average than pupils whose parents belonged to other occupational categories. This difference was undiminished in 1980. Thus all groups have on average increased their scores by the same amount. On the other hand, a comparison of boys' and girls' results reveal changes.

There were no differences between 13-year-old boys and girls as regards the verbal test, Opposites, in the 1960s. In 1980 the girls were definitely better than the boys. In the other two tests, Metal-folding and Number Series, the boys did better than the girls in the 1960s, but this difference no longer existed in 1980. The test results in 1980 indicated that both boys and girls had improved, compared with the results about 20 years earlier, but this is truer of the girls than of the boys.

Thus there is no obvious explanation for these results. They may of course be due to different efforts in the community at large to promote the equality of the sexes. Boys and girls have more similar toys than they used to, they take part in the same activities in day nursery and playschool, they take the same craft subjects at school, and so on. Similarly, parental attitudes to sex roles may have changed, in such a way that boys and girls receive a more similar upbringing and are involved in more similar activities at home than they used to be. All these things might explain why the girls now do just as well as the boys in tests where they used to have lower scores, but they can hardly explain why girls are now doing better than the boys in the verbal test, where there used not to be any difference between the sexes. Another possible reason for these changing differences between the sexes might be connected with changes in maturity processes. Many surveys have shown that children and young persons are now maturing earlier than they used to. Moreover, we know that during pre-puberty and puberty, girls mature earlier than boys. This also applies to characteristics investigated through our tests. Since the pupils were tested at the age of 13, i.e. at the height of an intensive development

process, their scores could reflect these circumstances. If so, this has very important implications in the school context, for the changed differences could point to important changes in aptitude for school work which are taking place gradually over considerable periods of time. If so, changes of this kind should also be allowed to influence the planning and design of school work. Continuing and deeper analyses of the survey findings should cast a useful light on this interesting problem, especially as regards the senior level years of compulsory school.

ARITHMETICAL SKILLS

Arithmetic tests were in the collection of data, both in the spring of 1982 and the spring of 1985. In grade 3, spring 1982, the arithmetic test included 15 items. In grade 6, spring 1985, it included the same 15 items plus another four.

These items cannot possibly take in all the teaching items included in the junior-level and intermediate-level syllabus. But the grade 3 arithmetic tests include most of the things which should be covered, wiz the four rules of arithmetic, problem-solving and a certain amount of mathematical terminology. The four items added in grade 6 involve decimals and percentages. Most of the arithmetical items included in the tests occur frequently in everyday life.

An extra close study has been made of the answers given by about 400 pupils. On average these pupils scored nearly 3.5 points more in grade 6 than in grade 3 for the items common to both tests. Sixty-eight per cent of the pupils in grade 3 got at least seven items right. In grade 6, 65% got at least 12 of these right. The great majority of pupils (86%) did better in grade 6, but 6% of them did less well in grade 6 than in grade 3. Most of the pupils solved the items more confidently in grade 6 than they had done in grade 3. Above all, they were now better at solving problems, i.e. sums including several addition and subtraction and multiplication tasks.

Grade 6 pupils tended to "get the sums wrong" far less often than they had done in grade 3, though mistakes such as simple miscalculations, conversion errors and errors due to confusing different rules of arithmetic in a single calculation also occurred in grade 6.

On the strength of preliminary results, and allowing for elementary slips or calculation errors, we have estimated that 15% of the pupils at the end of intermediate level have not acquired the knowledge which the curriculum defines as necessary to this level. Just over 2% of the pupils are to be considered extremely low achievers.

PARENTS AGREE WITH THE CURRICULUM

There is great unanimity between parents and curriculum regarding the most important tasks of school. The parents of pupils in both the survey groups were asked to place in ranking order nine tasks which can be attributed to schools. The question was: "What are the most important tasks of schools? Here are some of the tasks which schools are said to have. Put a one (1) beside the one you think is the most important, a two (2) beside the second most important, and so on, putting a nine (9) beside the least important."

The following table shows the ranking order in which the most important tasks of schools were placed by parents.

Overall ranking position	School task as worded in the questionnaire form
1	Transmitting basic skills of mathematics and Swedish
2	Teaching pupils to be co-operative and considerate
3	Transmitting a knowledge of other school subjects
4	Teaching pupils to think critically and adopt their own standpoints
5	Transmitting a knowledge of foreign languages
6	Transmitting a knowledge of working conditions
7	Enabling the pupils to assert themselves in competitive situations in the community
8	Teaching pupils to obey their parents, teachers and other adults
9	Sorting out pupils who are suitable for further education

Parents are above all unanimous in attaching most importance to the basic skills of mathematics and Swedish.

It is also clear that parents attach more importance to teaching co-operation and considerate behaviour than to competition.

The least importance is attached to sorting out pupils who are suitable for further education.

The ranking order indicated by the parents can be said to agree closely with the overriding objectives of the curriculum.

PUPILS' OPINIONS OF THEIR ABILITY IN READING, ARITHMETIC, WRITING AND PUBLIC SPEAKING

The Compulsory School Curriculum states that speaking, reading, writing and arithmetic are the foundations of most of the work which people do in school and adult life. These basic skills have a very important bearing on capacity for thought, on prospects of learning and also on the pupil's belief in himself and the pupil's inward security.

By asking pupils various questions, we tried to find their own opinions of their ability to read, write, count and speak. The pupils answered these questions in grade 3, in grade 6 and one year after leaving compulsory school.

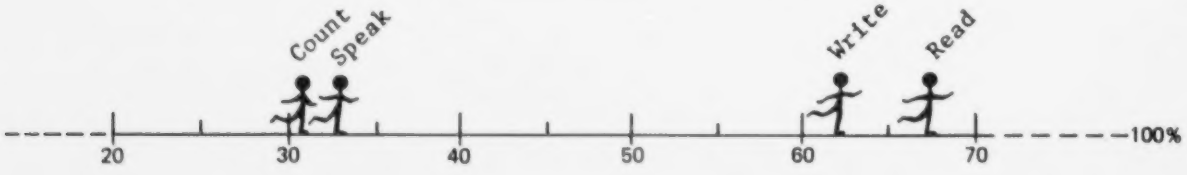
One of our reasons for approaching the pupils one year after they had left compulsory school, instead of doing so in grade 9, was our belief that they would now be able to view their compulsory school careers in perspective. They would know more about the knowledge and skills they needed after compulsory school, no matter whether they had gone on to upper secondary school or were doing something else. We asked the pupils in our first survey group whether they felt they had sufficient command of arithmetic, writing, reading and public speaking. We also found out their feelings in situations where they needed to apply these skills. In addition, we asked them if they had had any difficulty at

the senior level of compulsory school with arithmetic, writing, reading and public speaking.

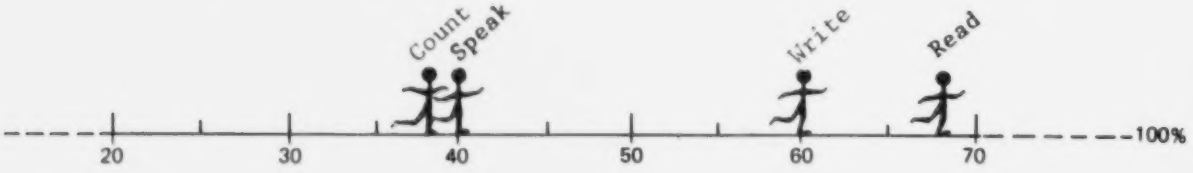
About 7,000 pupils, i.e. not quite 80% of the pupils who were in grade 6, replied to the questions. Just over 600 of these pupils were not attending upper secondary school.

More pupils feel sure of themselves when they have to read and write than when faced with arithmetic or public speaking.

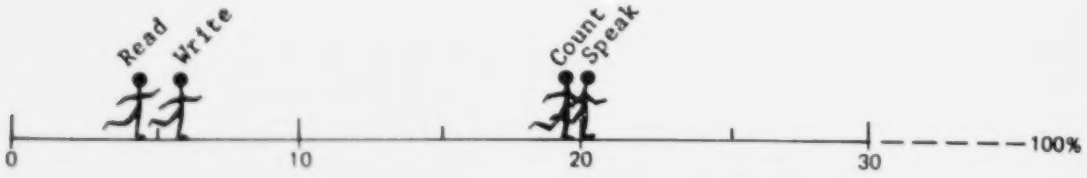
Here are the percentages of pupils feeling sure of themselves one year after compulsory school when they have to



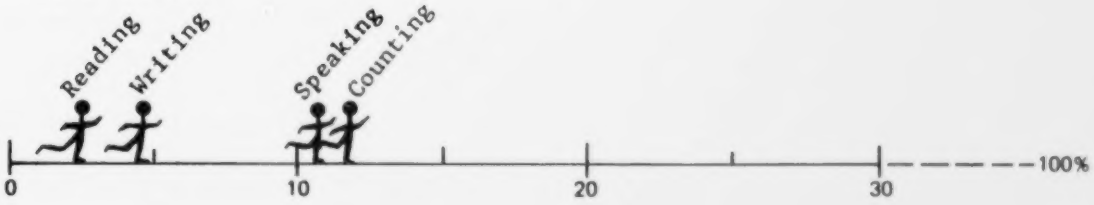
And here are the percentages of pupils replying that they had not had any trouble at the senior level of compulsory school with:



Here are the percentages of pupils feeling uncertain or very uncertain of themselves one year after compulsory school when they have to:



And here are the percentages of pupils saying, one year after compulsory school, that they had serious or very serious problems at senior level with:



All comparisons refer to the four basic skills of reading, writing, counting and public speaking. No consideration is given to relations with other school subjects and skills.

Comparing the percentage of pupils answering that they feel sure of themselves when reading or writing and the percentage feeling sure of themselves as regards counting or public speaking, one finds that the first group is twice as large as the second.

Conversely, counting and public speaking are a source of worry to most pupils. These are the skills which most pupils feel unsure of, feel that they do not know enough about and feel that they had trouble with at senior level.

DIFFERENT ANSWERS FROM GIRLS AND BOYS

The girls are more unsure of themselves than the boys about arithmetic but more confident as regards reading and writing. They feel to a greater extent than the boys that they have an insufficient command of arithmetic and also of public speaking. On the other hand, the boys tend to have more problems than the girls with reading and writing.

UPPER SECONDARY SCHOOL STUDENTS MORE CONFIDENT

Young persons attending upper secondary school and young persons doing something else instead have different response patterns. A larger proportion of the upper secondary school students feel sure of them-

selves as regards arithmetic, reading, writing and public speaking. They tend more to feel that they have adequate knowledge and skills, and they do not have so many problems with these skills either at the senior level of compulsory school.

Those who feel that they are bad readers in grade 6 are liable to remain uncertain of their reading ability one year after leaving compulsory school.

At both junior and intermediate levels, 20% of the pupils feel that they read badly. These problems appear to diminish at senior level, where less than 3% felt that they had serious reading problems. One year after leaving compulsory school, 2.3% of the pupils feel that they have insufficient command of reading. Between 4 and 8% feel unsure of themselves or very unsure of themselves in situations where they are required to read. The largest proportion of uncertain pupils comes in the group not attending upper secondary school.

There is a certain connection between perceived reading ability in grade 6 and the confidence felt in reading situations later on. Here it was the same pupils who replied in grade 6 and one year after leaving compulsory school. Uncertainty is commonest among those who felt themselves to be bad readers in grade 6. Several of these pupils also feel that they have insufficient reading skill one year after leaving compulsory school, and it is also more common for pupils in this group to have experienced reading difficulties at senior level.

Many pupils who feel themselves to be good at arithmetic in grade 6 also feel sure of themselves when faced with arithmetical tasks one year after leaving compulsory school. Arithmetic problems seem to increase somewhat at intermediate level, declining considerably during senior level.

Twenty-five per cent of the pupils in grade 3 and 31% of those in grade 6 reply in the negative when asked if they are good at arithmetic. These problems appear to diminish somewhat at senior level, but not so heavily as reading problems. About 12% of the pupils felt that they

had serious difficulties with arithmetic at senior level. Twenty per cent of the group which had never attended upper secondary school had serious problems with arithmetic. About 20% felt that they did not know enough, and roughly the same percentage felt unsure of themselves about arithmetic one year after leaving compulsory school. The same applied to an even larger percentage of those who had not attended upper secondary school.

As regards arithmethic too, there is a connection between subjective ability in grade 6 and the confidence experienced in arithmetical situations later on. Confidence is most widespread among those who felt they were good at arithmetic during intermediate level. And a large percentage of those who felt that they were good at arithmetic in grade 6 feel that they have an adequate command of arithmetic one year after leaving compulsory school.

EIGHT PUPILS IN TEN FEEL THEY HAVE BEEN GIVEN ENOUGH PRACTICE IN WORKING INDEPENDENTLY

The curriculum emphasies certain important skills which the pupil needs as a member of a democratic society. Among other things, the pupil needs to learn how to co-operate with others in working teams and groups. He/she must also "be able to appraise categorical statements and critically scrutinise simplified solutions to complicated questions". The pupil must also be able to organise his studies, allocate tasks and organise reports, as well as mastering certain study techniques.

One year after leaving compulsory school, the pupils were asked for their opinions about the training that compulsory school gave them in co-operating, in working independently, in taking personal responsibility for seeing that assignments were completed, in using a good study technique and in exercising their critical faculties.

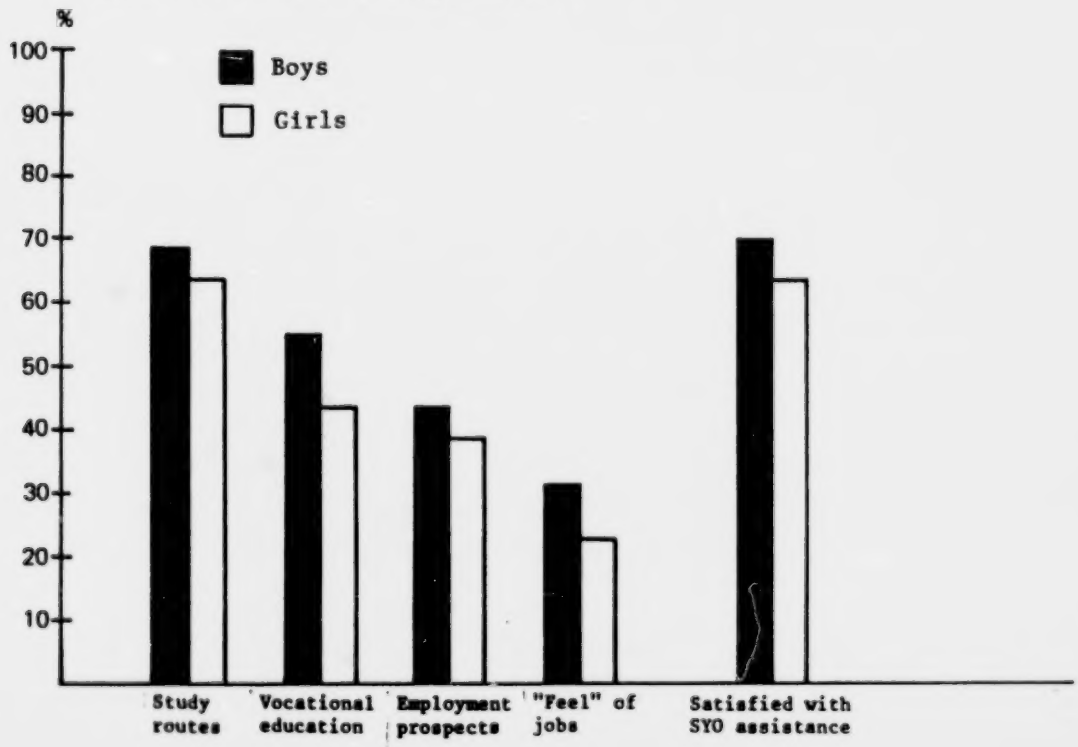
Just over 80% feel that they had received sufficient practice in working independently. Seventy per cent feel that they have been given enough practice in assuming responsibility for the completion of

assignments. Not quite 60% feel that they were given sufficient practice in co-operating, e.g. planning and making decisions together with others. About the same percentage feel that they received sufficient practice in exercising their critical faculties, i.e. not automatically believe everything that is said and written. Less than half felt that they had been given sufficient practice in using good study techniques.

STUDY AND VOCATIONAL GUIDANCE

Study and vocational guidance (SYO) is an important ingredient of school work. Its purpose is to prepare pupils for future vocational choice and to give them a knowledge of working life. We therefore asked the pupils whether they felt that compulsory school had informed them sufficiently about matters relating to future education and vocational choice.

The following diagram shows the percentages of the pupils feeling that they had received sufficient information about study routes, vocational education, employment prospects and the "feel" of different jobs. It also shows the percentage feeling that the SYO officer/careers teacher had given them the help they needed.



The upper secondary school students were asked to say how much the information they had received from the SYO adviser/careers teacher had meant to their choice of study programme in upper secondary school.

Less than 20% of the upper secondary school students feel that SYO information has played a very important part in their choice of study route. Half the pupils do not believe it affected their choices at all.

MOST JUNIOR LEVEL PUPILS PERSISTENT

We asked the junior and intermediate level pupils if they give up easily when faced with a difficult task and if their thoughts often wandered when they were meant to be reading and writing at school. The older pupils were also asked whether they gave up easily when faced with a tough assignment and whether they had difficulty in concentrating during lessons. Three times as many pupils (30%) give up in grade 6 as in grade 3 (10%) when faced with a difficult assignment. Persistence appears to increase somewhat at senior level, but even then twice as many pupils give up as in grade 3.

The different levels show the same tendency as regards powers of concentration.

SATISFACTION AT SENIOR LEVEL AND IN UPPER SECONDARY SCHOOL

At senior level, 26% of the pupils were perfectly happy and 8% were not so happy or unhappy. Quite a large proportion of those who were unhappy at senior level do not attend upper secondary school.

In upper secondary school, 38% state that they are perfectly happy and just over 5% that they are not so happy or else unhappy. Of the pupils who are unhappy at senior level and are now attending upper secondary school, only one-third report that they are unhappy now. There is also a small percentage of students who are unhappier in upper secondary school than they were at senior level.

ALTERNATIVE COURSES, STANDARDISED ACHIEVEMENT TESTS AND MARKS

We have made various studies of the working of marks. These studies were performed on the oldest cohort of the UGU project, i.e. the pupils who left grade 9 of compulsory school in the spring of 1983.

Standardised achievement tests are designed to help teachers in the award of marks. They are supposed to convey information about the achievement of a given class compared with other classes in the same cohort. It followed that the marks given to individual pupils can, and very often ought to, deviate from their results in standardised achievement tests. When studying such large groups of pupils as are involved in the UGU project, one should expect equal numbers of pupils to have higher marks than standardised achievement test results and vice versa. We find that roughly half the pupils have the same marks as are indicated by their standarised achievement test results. This applies to all school subjects where comparisons are possible. On the other hand there are big differences between the sexes and between alternative courses as regards the percentages of pupils obtaining marks above or below their standardised achievement test results. This can be seen from the following table, which shows marks and standardised achievement test results in grade 8 English, grade 9 mathematics and grade 9 Swedish.

		Percentages of pupils gaining		
		Lower marks than their standardised achievement test results	The same marks as their standardised achievement test results	Higher marks than their standardised achievement test results
ENGLISH				
grade 8	G	10	55	35
special course	B	20	59	20
general course	G	17	58	24
	B	31	55	14
MATHEMATICS				
grade 9	G	5	46	48
special course	B	17	55	25
general course	G	11	55	31
	B	21	55	20
SWEDISH				
grade 9	G	11	50	39
	B	20	54	25

This table shows among other things that, comparing the girls' marks with their standardised achievement test results, a much larger number obtained higher marks than obtained lower ones. This is above all the case in the special mathematics course, where nearly half the girls were awarded marks exceeding their standardised achievement test scores. The heaviest bias in the opposite direction concerns the distribution of marks between the boys taking the general English course.

As can be seen from the tabular summary, there appears to be a very big difference in marking practices between the special and general courses. And marks also appear to be differently awarded to girls and boys.

TACTICAL CHOICES PAY

What happens to pupils' marks if they change their alternative mathematics and English courses at senior level? This question has been discussed a great deal, and reference has been made, for example, to "tactical choices" by the pupils. We have studied the question in the UGU project, and the following are some of the results we obtained.

	Pupils' choices in grade 6		Pupils' choices in grade 9	
	Boys	Girls	Boys	Girls
MATHEMATICS				
Special course	75%	78%	56%	54%
ENGLISH				
Special course	68%	84%	61%	77%

Thus many pupils changed courses during senior level. The number changing from special to general course exceeded the number changing in the other direction. These changes occurred at different times and in different ways. What happens to marks in connection with course changes? This can be seen from the following tables, showing the commonest "alternative course patterns". All eight possible patterns of change are included, but only a few pupils changed from general to

special courses. The table only includes groups consisting of more than 100 pupils.

ENGLISH

Alternative course			Average mark			Percentage of pupils taking this combination
Grade 7	Grade 8	Grade 9	Grade 7	Grade 8	Grade 9	
BOYS						
S	S	S	3.1	3.1	3.1	57
G	G	G	2.6	2.6	2.6	27
S	S	G	2.3	2.0	3.3	5
S	G	G	1.8	3.1	3.2	5
Other combinations			"	"	"	6
GIRLS						
S	S	S	3.4	3.4	3.4	73
G	G	G	2.9	2.9	3.0	14
S	S	G	2.5	2.2	3.7	5
S	G	G	2.0	3.3	3.6	4
Other combinations			"	"	"	4

MATHEMATICS

Alternative course			Average mark			Percentage of pupils taking this combination
BOYS						
S	S	S	3.3	3.2	3.2	54
G	G	G	2.6	2.5	2.5	24
S	S	G	2.4	2.0	3.6	10
S	G	G	1.9	3.0	3.1	8
Other combinations			"	"	"	4
GIRLS						
S	S	S	3.5	3.4	3.4	52
G	G	G	2.9	2.9	2.9	23
S	S	G	2.7	2.2	3.8	12
S	G	G	2.1	3.3	3.4	10
Other combinations			"	"	"	3

S = Special course
G = General course

On average, pupils who had taken the special English and mathematics courses all through senior level obtained higher marks than those who took general courses in all three grades.

"Best marks" went to those pupils who, after taking special courses in grades 7 and 8, switched to general courses for their final year. These pupils improved their marks by an average of 1.5 units.

WHAT NEXT?

Up till now, the work of the project has been dominated by frequently recurring collections of data. This has involved spending a great deal of time on preparations, administration and subsequent checks, marking and card-punching. The pupils in the oldest cohort have now left compulsory school and most of them have completed their upper secondary schooling as well, while the youngest cohort are now in grade 7 of compulsory school. This means that a considerable amount of data collection remains to be done. Processing, analyses and presentation of results will be correspondingly more extensive.

Data concerning the upper secondary school studies of pupils in the oldest cohort will be obtained from Statistics Sweden. These data will show the lines or courses chosen, the study programmes completed and the results obtained in doing so. Plans also include the possibility of a new questionnaire survey concentrating mainly on post-secondary studies and/or occupational activity.

The pupils in the youngest cohort will primarily be followed through compulsory and upper secondary school in the same way as the older pupils. We plan to collect particulars about standardised achievement test scores, marks and other information at the end of each school year. We also plan to conduct a questionnaire survey one year after the pupils have left compulsory school, i.e. in the spring of 1989. The content of the questionnaire form then used will be the same as that administered to the pupils in the older group in 1984.

The next processing operations and analyses in line will be concentrated on studying various aspects of equality in school and education. Swedish schools are often referred to as being "a school for everybody". We will study the extent to which schools have lived up to this objective. We propose comparing, for example, different groups of pupils with different aptitudes, pupils in different parts of the country, different alternative courses etc. We now have a better possibility of undertaking such comparisons in a longer chronological perspective, which is the principal aim of the project.

The findings will be presented in reports and articles, in the same manner as is illustrated by this information sheet. In certain cases, though, more complicated methods of analysis will be employed. The non-identifiability of individual persons or classes will remain a fundamental principle in reports on our findings, and the reports generated by this project will not threaten the personal integrity of the participating pupils in any other way either.

Another important aim is for the results of the project studies to be disseminated as widely as possible. We therefore aim, as far as our limited resources will allow, to report our findings in as many different ways and through as many different media as possible.

ANY QUESTIONS OR COMMENTS?

Further information is obtainable from the project team, from whom a more detailed list of reports is obtainable and reports can be ordered. We will be grateful for any viewpoints received concerning this information material and the project generally.

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EXAMPLES OF REPORTS AND ARTICLES FROM THE UGU PROJECT

Ek, K., & Pettersson, A: Utvärdering genom uppföljning av elever IV. Elevers uppfattning om sig själva i skolan. Report from the Department of Educational Research, Stockholm Institute of Education 4/1985.
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(In Swedish)

Emanuelsson, I. & Svensson, A. (1986). Does the Level of Intelligence Decrease? A Comparison between Thirteen-Year-Olds Tested in 1961, 1966 and 1980. Scandinavian Journal of Educational Research 30, 25-38. 25-38.

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(Pupils aim for points instead of knowledge.)
(In Swedish)

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(What does "getting through" mean in a school for everybody?)
(In Swedish)

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(In Swedish)

Pettersson, A. Utvärdering genom uppföljning av elever III. Analys av räkneuppgifter, årskurs 3. Report from the Department of Educational Research, Stockholm Institute of Education, 7/1983.
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(In Swedish)

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(Evaluation by pupil follow-up V. Analysis of arithmetic items, grade 6.)
(In Swedish)

SCHOOL RESEARCH NEWSLETTER

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